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10/754,491	01/09/2004	David W. Gohl	163.1847US01	6176
43896	7590	07/17/2007	EXAMINER	
ECOLAB INC. MAIL STOP ESC-F7, 655 LONE OAK DRIVE EAGAN, MN 55121			DOUYON, LORNA M	
			ART UNIT	PAPER NUMBER
			1751	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/754,491

**Applicant(s)**

GOHL ET AL.

**Examiner**

Lorna M. Douyon

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,6,10,11,13-21 and 23-34 is/are pending in the application.
- 4a) Of the above claim(s) 23-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-2, 4, 6, 10-11, 13-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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1. This action is responsive to the amendment filed on March 13, 2007.
2. Claims 1-2, 4, 6, 10-11, 13-21, 23-34 are pending. Claims 23-34 are withdrawn from consideration as being drawn to nonelected claims.
3. The objection to the disclosure on page 22, line 22 is withdrawn in view of Applicants' amendment.
4. The objection to claim 12 is withdrawn in view of Applicants' cancellation of this claim.
5. The rejection of claims 1-2, 4, 6, 10-21 under 35 U.S.C. 112, second paragraph is withdrawn in view of Applicants' amendment.
6. Claims 1-2, 4, 10-11, 13, 15, 20 and 21 stand rejected under 35 U.S.C. 102(b) as being anticipated by Cornelissens (GB 2,000,177) for the reasons set forth in the previous office action and which is repeated below.

Cornelissens teaches a detergent composition containing (a) one or more surfactants, (b) at least 5% by weight of an alkali metal carbonate, and (c) 5-30% by weight of an acid, and (b) and (c) are separate, component (c) having a higher rate of solubility in a wash liquor than the alkaline component which is present in excess, component (c) dissolving so that the wash liquor has a pH of 2.0 to 5.0 before its

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temperature reaches 25°C, any alkaline material hardly dissolving before the temperature of the wash liquor reaches 40°C, and dissolving before the wash liquor reaches 60°C, and imparting a pH of from 9.0 to 10.5 (see abstract). Another category of materials that may be incorporated into the acidic constituent are percompounds such as peroxides, which have an optimum bleaching effect at a pH lower than that at which the detergent composition displays optimum cleaning action (see page 2, lines 60-62). After the acidic constituent has dissolved, the pH of the wash liquor may, during the acid phase of the washing process, rise to a maximum value of 6.5 to 7.0, wherein this increase in pH is caused by the gradual dissolution of the precipitated carbonates (see page 2, line 65 to page 3, line 4). Preferably, the alkaline constituent, for example, sodium carbonate, is provided with a coating (see page 3, lines 14-20; 43-45; 54-57). The alkaline constituent may contain one or more usual detergent components such as surfactants, builders, bleaching agents, fluorescent brighteners and perfumes (see page 3, lines 21-24). The washing cycle in the automatic washing machine, is understood, to inherently have a draining and rinsing cycles. Cornelissens, teaches the limitations of the instant claims. Hence, Cornelissens anticipates the claims.

7. Claim 6 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Cornelissens as applied to the above claims for the reasons set forth in the previous office action and which is repeated below.

Cornelissens teaches the features as described above. Cornelissens, however, fails to specifically disclose the recited time while at the first and second pH.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made that the duration while at the acidic and alkaline pH range would reasonably be within the time as those recited in the claim because Cornelissens teaches that the acidic component dissolves first and the dissolution of alkaline component which has a coating is delayed.

8. Claims 1-2, 4, 6, 13, 15, 20 and 21 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Ruck (US Patent No. 4,388,077) in view of Reinwald et al. (US Patent No. 4,118,189), hereinafter "Reinwald" for the reasons set forth in the previous office action and which is repeated below.

Ruck teaches a method for washing fabric which comprises washing the fabric in an aqueous washing solution containing an amphoteric surfactant which, in the washing solution changes from an anionic state to a cationic state in response to a decrease in the solution pH, a builder to give an initial solution pH which ensures that the surfactant is in the anionic state, and a pH builder which dissociates at the initial solution pH to form an acid, which acid reduces the solution pH causing the surfactant to change to the cationic state (see col. 2, lines 42-52). The composition also includes one or more acid and/or alkaline builders to give an initial washing solution pH which ensures that the amphoteric surfactant is initially in its anionic state, preferably the builder is chosen to give an initial pH in the range of about 7.1 to 8.0 units (see col. 2, lines 10-17). Ruck also teaches washing denim garments with a washing composition for 6 minutes, cold water rinsed for 2 minutes and spun dry at high speed for 4 minutes, wherein when the composition was included in amounts of 3 lb/60 Imp. Gal., the initial solution pH was

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found to range from about 7.9 to 8.1 depending on the water hardness and the solution pH just prior to the rinse cycle ranged from about 6.4 to 6.8 (see col. 4, line 20 to col. 5, line 17). The washing composition comprises amphoteric surfactant such as Ammonyx 2000 - a distearylethylbenzyl ammonium chloride, sodium perborate, trisodium phosphate, carboxymethyl cellulose, sodium carbonate and optical brightener (see col. 4, lines 20-34). The draining step would be understood to have taken place prior to the cold water rinse. Ruck, however, fails to disclose the pH ranges, that is from "about 2 to about 6" to "about 7 to about 11", and washing the laundry with a detergent use solution from the laundry washing machine prior to the step of applying the detergent containing peroxyacid, or draining at least a portion of the detergent use solution from the laundry washing machine prior to the step of applying the detergent containing peroxyacid.

Reinwald teaches a washing process which can be carried out in several, preferably two steps, replacing the wash liquid in between and this method is recommended particularly for greatly soiled wash (see col. 4, lines 5-7). The first stage, the so-called pre-wash cycle, can be carried out in known manner which serves primarily to remove coarse soil, the prewash liquor is removed before the start of the main wash cycle (see col. 4, lines 7-18). The method is carried out by using conventional cleaning compositions which include bleaching agents and bleach activators (see col. 4, lines 38-48).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to subject the laundry of Ruck to a pre-wash cycle, remove the prewash liquor, prior to the main wash cycle because this would remove coarse soil as

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taught by Reinwald. With respect to the pH ranges, as the word “about” permits some tolerance (see *In re Ayers*, 69 USPQ 109, and *In re Erickson*, 145 USPQ 207), the upper limit of a pH of about 6 in the first given range reads on the about pH 7.1 of Ruck and the pH of about 7 in the second given range read on the pH of about 6.4 to 6.8 of Ruck. Even assuming the pH do not overlap, absent unexpected results, a *prima facie* case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties, see *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). See MPEP 2144.05I.

9. Claim 14 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Cornelissens, or Ruck in view of Reinwald, as applied to the above claims, and further in view of Werdehausen et al. (US Patent No. 3,718,597), hereinafter “Werdehausen” for the reasons set forth in the previous office action and which is repeated below.

Cornelissens, or Ruck in view of Reinwald teaches the features as described above. Cornelissens, or Ruck in view of Reinwald, however, fails to disclose a halogen bleach like chlorinated trisodium phosphate or sodium hypochlorite.

Werdehausen teaches the equivalency of alkali metal perborates and percarbonates with chlorinated trisodium phosphate or alkali metal hypochlorite as bleaching agents in a similar method (see claim 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the perborates or percarbonates of Cornelissens or

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Ruck in view of Reinwald with chlorinated trisodium phosphate or alkali metal hypochlorite because the substitution of art recognized equivalents as shown by Werdehausen is within the level of ordinary skill in the art.

10. Claims 16-19 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Cornelissens, or Ruck in view of Reinwald as applied to the above claims, and further in view of Barnes for the reasons set forth in the previous office action and which is repeated below.

Cornelissens, or Ruck, in view of Reinwald teaches the features as described above. Cornelissens, or Ruck in view of Reinwald, however, fails to specifically disclose peroxyacids like peroxyoctanoic acid, or an activator.

Barnes teaches the features as described above. In particular, Barnes teaches the equivalency of perborates or percarbonates with organic peroxyacids (which are also activators), which include peroxyoctanoic acid, as bleaching agents (see col. 6, lines 30-35; see col. 5, lines 43-58).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the perborate or percarbonate of Cornelissens, or Ruck in view of Reinwald with organic peroxyacids like peroxyoctanoic acid because the substitution of art recognized equivalents as shown by Barnes is within the level of ordinary skill in the art.



***Response to Arguments***

11. Applicant's arguments filed March 13, 2007 have been fully considered but they are not persuasive.

With respect to the rejection based upon Cornelissens, Applicants argue that Cornelissens is directed to a detergent composition where a pH change occurs during the detergent step whereas the present invention as claimed is directed to a bleaching and antimicrobial composition that is used after the detergent step where a pH change occurs during the bleaching and antimicrobial treatment step.

The Examiner respectfully disagrees with this arguments because in the present claim 1, there is nowhere required wherein the detergent step, or step (a), and step (b) (i.e, the bleaching and antimicrobial treatment step) are separate or sequential steps. These steps can also be construed as being simultaneous. Hence, the laundry step of Cornelissens reads on both steps (a) and (b).

Applicants also argue that in Cornelissens, the pH change is caused by the dissolution of the detergent constituents at different rates in the wash liquor whereas the present invention as claimed uses the addition of a pH adjusting agent to cause the pH change.

The Examiner respectfully disagrees with the above argument because the coated alkaline constituent of Cornelissens on page 3, lines 43-45 and 54-57 meets the limitations required in claim 11, hence, the step of adding a pH adjusting agent in step (b) of claim 1.

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Applicants also argue that Cornelissens notes that a peroxide compound may be used with the acidic constituent, however, Cornelissens does not teach or suggest the use of a peroxide compound in a second step where the peroxide compound exhibits both bleaching and antimicrobial properties when used at different pH ranges.

The Examiner respectfully disagrees with the above arguments because Cornelissens also teaches on page 3, lines 21-24 that the alkaline constituent, (whose dissolution reads on the second step) may contain bleaching agents, such as sodium perborate as exemplified in Example IV on page 5, lines 43-62.

With respect to the obviousness rejection of claim 6 based upon Cornelissens, Applicants argue that Cornelissens does not teach or suggest a two-step method for treating laundry using a detergent step and then a bleaching and antimicrobial composition treatment step that includes a pH change, and Cornelissens does not teach a pH change in a bleaching and antimicrobial step that follows a detergent step.

The responses above apply here as well.

With respect to the rejection based upon Ruck in view of Reinwald, Applicants argue that neither Ruck nor Reinwald, either individually or in combination, teach or suggest the use of a bleaching and antimicrobial properties of the composition, and that neither Ruck nor Reinwald mention an antimicrobial agent as an optional ingredient.

The Examiner respectfully disagrees with the above argument because Ruck teaches sodium perborate in col. 4, line 27, which compound reads on the bleaching and antimicrobial composition, and Reinwald teaches bleaching agents and bleach activators in col. 4, lines 38-48.

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With respect to the rejection of claim 14 based upon Cornelissens or Ruck in view of Reinwald and further in view of Werdehausen; and claims 16-19 based upon Cornelissens or Ruck in view of Reinwald and further in view of Barnes, Applicants argue that claim 1, to which these claims are ultimately dependent upon, is patentable in light of the reasons already discussed above, and the combinations of Cornelissens, Ruck Reinwald, Werdehausen or Barnes remedy the shortcomings of the prior art identified above.

The responses above apply here as well. Hence, the above rejections are maintained.

### ***Conclusion***

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lorna M. Douyon whose telephone number is 571-272-1313. The examiner can normally be reached on Mondays-Fridays 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on 571-272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Lorna M. Douyon/  
Primary Examiner  
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